



TITLE:

# 阿蘇内牧黒川水溫氣溫満一ヶ年観測表

AUTHOR(S):

江藤, 敏治; 森, 昭三

---

CITATION:

江藤, 敏治 ...[et al]. 阿蘇内牧黒川水溫氣溫満一ヶ年観測表. 地球物理  
1946, 7(3): 219-221

ISSUE DATE:

1946-01-25

URL:

<http://hdl.handle.net/2433/178327>

RIGHT:

# 阿蘇内牧黒川水温気温満一ヶ年観測表

観測者 江藤 敏治, 森 昭三

## (1) 黒川水温毎月初一日毎時観測表(昭和18年)

7.8.9時/2測定値(有線)/上段/蛇測値(下段)/初測値(示人)													
月	1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月	平均
0	6.5	2.65	10.2	15.6	18.0	20.3	21.3	26.1	23.0	21.0	13.05	11.2	15.7
1	6.8	3.40	10.3	15.1	18.0	19.7	21.1	25.9	23.0	20.5	13.05	11.0	15.6
2	6.5	3.20	10.4	14.8	17.6	19.2	21.1	25.0	22.9	20.3	13.7	10.9	15.4
3	6.8	3.30	10.3	14.7	17.2	19.0	21.0	25.0	22.5	20.1	13.1	10.2	15.3
4	6.8	3.50	10.0	14.1	17.0	18.5	20.9	24.6	22.5	20.0	13.1	10.0	15.1
5	6.7	3.90	9.7	13.4	16.5	18.2	20.8	24.2	22.3	19.7	13.1	9.9	14.9
6	6.5	4.30	9.3	13.1	16.8	18.0	20.5	24.2	22.3	19.0	13.1	9.8	14.7
7	6.5	4.50	9.3	12.6	16.1	17.7	20.4	24.0	22.2	19.1	13.1	9.5	14.65
8	6.8	4.70	9.2	12.3	16.1	17.9	20.2	23.5	22.2	20.0	13.0	11.1	14.65
9	7.0	4.50	7.7	11.0	16.1	18.0	19.0	23.5	22.2	20.5	13.15	11.1	14.65
10	5.5	5.80	8.3	11.6	16.5	18.5	19.3	24.2	23.3	20.1	13.3	11.0	14.8
11	5.9	5.90	9.7	11.9	17.0	19.0	19.3	24.5	23.5	21.0	13.7	11.0	15.2
12	5.8	5.90	9.3	12.4	17.5	19.5	20.0	25.5	23.5	21.5	13.7	11.0	15.5
13	6.2	5.70	9.9	13.0	19.0	20.5	21.0	26.1	23.8	22.0	13.7	11.3	16.0
14	6.5	5.25	10.5	13.8	19.5	21.5	22.0	27.0	23.9	22.8	13.7	12.0	16.5
15	6.8	5.30	9.2	14.6	19.8	23.0	22.5	27.8	23.9	23.5	13.7	11.8	16.8
16	6.9	4.70	9.8	14.5	20.5	23.1	22.8	28.3	24.0	23.8	13.7	11.7	17.0
17	7.0	4.30	9.7	14.5	20.6	23.5	22.8	28.5	24.0	24.1	13.6	11.9	17.05
18	6.9	3.40	9.2	14.6	20.5	23.3	22.8	28.5	23.9	24.1	13.3	11.8	16.9
19	7.5	3.20	9.4	14.7	20.5	23.1	22.8	28.3	23.9	24.0	13.3	12.0	16.9
20	7.1	2.80	9.7	15.2	20.0	22.8	23.0	27.6	23.9	23.5	13.2	11.7	16.7
21	6.9	2.90	10.0	15.3	19.5	22.0	22.5	27.5	23.9	23.1	13.1	11.8	16.5
22	7.2	2.70	10.1	15.2	19.0	22.0	22.0	27.3	23.8	23.0	13.1	11.9	16.4
23	6.8	2.40	10.2	15.6	19.0	21.2	21.8	27.2	23.5	22.5	13.1	11.8	16.25
24	6.9	2.80	10.7	15.5	18.5	20.5	21.8	27.0	23.3	21.5	13.1	11.5	16.1
平均	6.69	4.01	9.73	14.0	18.3	20.5	21.4	26.1	23.3	21.7	13.29	11.2	15.7

阿蘇内牧黒川水温気温満一ヶ年観測表

(2) 黒川水温毎日二回9時と15時観測表

年月	1943-4		5		6		7		8		9		10		11		12		1944-1		2		3	
日	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15
1	—	—	17.3	20.4	17.2	21.35	19.7	—	20.6	24.4	19.3	21.5	16.5	19.0	11.3	14.9	9.9	11.3	6.9	8.8	6.3	—	8.8	11.8
2	—	—	16.7	21.2	19.7	22.7	19.0	22.0	21.2	24.7	17.8	20.0	16.5	18.6	13.3	15.2	9.2	11.2	5.3	6.5	—	—	7.8	12.3
3	—	—	18.7	21.3	19.9	23.0	20.4	22.0	20.3	—	18.0	21.3	15.6	17.6	13.0	15.9	10.3	12.4	5.0	7.3	4.7	—	8.3	—
4	—	13.3	19.0	21.0	18.7	20.1	19.7	21.8	19.7	22.4	17.7	20.5	14.9	15.6	12.7	15.6	8.0	8.5	5.8	7.0	8.7	9.0	9.2	—
5	11.5	14.9	19.4	19.2	16.3	18.0	19.8	19.6	20.3	23.5	18.7	21.0	14.2	17.0	11.9	15.3	—	—	8.3	7.3	8.0	9.5	6.5	10.4
6	10.5	11.2	16.9	19.9	15.7	17.7	19.8	19.7	—	—	18.1	21.3	14.8	—	13.7	15.75	8.2	9.3	5.2	6.0	7.5	8.0	6.6	8.2
7	9.8	12.8	17.0	22.0	17.4	19.4	19.4	22.5	21.9	—	18.5	21.0	15.6	18.6	12.5	14.7	8.2	14.7	4.4	5.8	8.3	7.8	6.0	9.3
8	9.8	10.0	17.9	21.5	18.4	21.0	20.5	22.3	21.2	24.5	19.0	21.4	15.8	18.2	13.9	13.7	—	7.7	5.0	7.8	5.6	8.8	5.1	7.6
9	8.5	12.0	18.4	22.4	19.0	21.2	20.1	22.3	19.3	24.1	19.7	21.5	15.8	18.3	14.3	16.55	5.3	9.0	5.8	7.7	7.6	9.0	6.3	8.0
10	8.9	13.8	18.7	22.5	19.1	20.3	20.5	22.8	20.5	23.7	18.5	22.3	16.3	18.6	14.5	15.2	7.3	—	7.2	7.9	6.2	8.4	5.5	7.6
11	12.2	14.0	18.7	21.2	18.4	21.2	21.2	24.2	20.7	23.1	19.5	20.4	15.9	17.0	12.5	15.4	6.5	9.2	5.3	8.1	7.6	10.2	5.3	7.8
12	11.4	13.7	15.4	21.2	—	—	22.5	25.0	21.0	24.7	—	18.5	13.75	16.6	10.4	15.7	7.7	9.8	6.6	8.6	8.3	8.3	5.4	10.5
13	8.3	12.3	18.0	19.2	21.0	22.0	23.0	—	20.7	23.6	19.1	22.4	13.8	17.3	10.2	14.3	6.9	—	5.3	7.3	8.0	9.5	7.5	10.0
14	10.0	10.0	19.3	21.4	—	22.4	22.0	24.15	20.5	23.5	18.7	—	—	—	10.4	12.8	8.3	11.0	8.7	10.3	7.5	9.2	9.2	10.9
15	9.4	14.0	19.2	19.1	20.8	—	22.0	—	—	23.6	21.5	21.7	16.0	17.2	13.5	14.7	7.3	—	7.3	8.0	8.0	10.7	9.3	13.4
16	10.5	—	11.2	18.4	20.5	—	21.6	24.5	20.3	20.4	20.3	22.6	16.5	19.4	11.3	—	11.7	12.0	5.0	7.8	4.6	9.6	9.0	13.4
17	11.0	14.3	17.0	19.4	20.0	21.5	21.0	24.9	20.2	24.2	18.0	—	16.2	17.5	12.3	14.8	8.8	10.8	8.9	8.2	6.6	9.5	11.2	10.8
18	11.7	12.4	18.0	20.0	—	—	21.3	25.2	20.7	24.0	17.9	22.3	16.2	19.2	10.3	12.3	9.8	11.0	9.5	10.5	6.7	8.8	8.4	12.8
19	13.0	14.4	18.0	19.4	19.0	21.0	21.3	23.0	20.0	20.7	20.3	20.5	15.8	18.0	7.8	10.5	7.4	10.8	9.0	9.5	5.9	8.1	9.6	11.1
20	11.3	14.2	17.0	21.4	—	22.5	21.0	22.3	19.9	20.7	—	—	14.1	15.3	8.8	9.8	6.3	8.0	5.5	8.0	5.2	4.9	6.6	11.0
21	13.8	15.0	17.3	—	18.0	22.1	21.3	23.3	19.6	24.0	—	20.0	13.5	15.3	7.4	10.3	10.7	13.3	6.0	8.0	4.2	7.8	10.6	11.6
22	14.0	18.4	17.3	22.7	19.3	23.9	20.9	20.4	19.3	—	16.3	—	12.8	13.5	8.4	9.3	10.5	12.6	8.9	9.1	5.3	6.7	7.4	10.5
23	14.7	17.3	17.7	19.7	19.0	22.7	18.9	22.5	20.3	21.3	16.8	—	13.5	14.9	7.3	—	9.0	11.2	8.3	9.0	7.0	12.5	7.8	11.0
24	14.3	16.0	16.7	18.7	22.5	22.7	18.7	20.8	20.2	23.6	17.0	20.0	14.0	15.5	6.5	—	12.0	11.9	9.8	10.5	8.3	7.0	7.7	12.7
25	15.7	19.2	17.2	17.3	19.5	22.3	19.8	22.9	19.5	24.0	16.45	18.9	14.8	15.2	9.0	—	8.5	9.3	9.8	4.5	7.3	9.7	15.4	—
26	16.6	19.4	17.7	23.1	20.0	22.0	20.3	23.0	19.5	19.8	17.3	19.2	14.9	17.9	9.3	12.3	5.5	10.3	9.3	10.3	6.0	10.5	10.3	11.2
27	18.0	20.4	18.2	17.1	19.2	20.5	20.5	20.7	19.7	—	16.7	21.7	12.9	15.2	9.3	12.3	7.5	8.6	9.2	9.2	6.4	8.4	7.7	13.0
28	16.5	17.0	16.0	17.5	19.0	24.0	19.8	22.3	19.0	21.5	17.7	20.0	13.0	15.2	10.4	11.1	6.6	8.3	7.3	—	6.5*	8.8	7.6	13.0
29	15.2	18.2	16.0	19.4	22.1	22.0	20.5	21.5	19.4	21.7	18.9	18.6	12.6	15.2	—	12.1	5.2	8.0	7.3	6.5	6.0	11.0	6.0	11.1
30	17.3	20.4	16.5	18.8	21.0	24.0	20.0	21.3	18.8	23.25	16.5	18.6	11.6	14.7	7.8	10.8	8.3	9.7	4.3	10.3	—	—	8.3	—
31	—	—	18.2	17.5	—	—	19.5	22.8	19.8	22.6	—	—	11.5	15.8	—	—	9.8	—	6.5	7.7	—	—	—	—
平均	13.7	—	18.8	—	20.4	—	21.5	—	21.45	—	19.45	—	15.7	—	12.1	—	9.3	—	7.6	—	7.7	—	—	9.4

(3) 内牧気温毎月初一日毎時観測表(昭和18年)

時刻	1月	2月	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月	平均
0	1.2	3.8	8.2	13.0	15.1	20.0	25.4	29.6	25.7	19.5	9.9	7.7	14.9
1	1.8	3.7	7.9	12.9	14.3	18.8	25.5	28.9	25.3	19.4	9.6	6.8	14.6
2	1.4	3.8	7.8	13.0	13.4	17.7	25.9	28.0	25.3	18.9	9.0	6.0	14.2
3	1.5	3.8	7.6	12.9	12.6	17.5	25.7	27.6	24.9	18.8	8.6	5.4	13.9
4	1.7	4.3	7.4	12.7	13.1	17.2	25.9	27.4	24.5	18.4	7.8	4.9	13.8
5	1.8	4.3	7.4	12.8	12.4	16.5	25.8	27.3	23.8	18.2	7.4	4.5	13.5
6	2.2	4.4	7.4	12.5	12.7	17.1	26.8	27.1	25.4	18.0	7.0	4.3	13.7
7	2.3	4.4	7.2	12.5	13.2	17.9	26.8	27.2	23.7	18.0	6.7	3.9	14.1
								26.8	26.4		8.5	10.0	
8	2.4	4.5	7.7	12.7	16.0	20.5	27.0	28.4	26.2	18.9	8.7	9.8	15.1
		3.3	3.1	12.2	18.1	21.7	23.9			22.0			
9	3.5	4.0	4.9	13.1	18.1	22.0	23.5	28.9	27.9	22.1	10.1	10.4	15.6
	1.1												
10	1.3	4.8	7.8	15.4	19.5	23.1	25.0	29.8	27.7	22.1	12.3	10.4	16.6
11	2.4	4.5	10.6	19.8	19.6	24.0	26.5	30.7	28.3	22.1	15.0	10.8	17.9
12	4.2	4.0	10.6	19.0	20.6	24.6	27.0	31.3	29.1	22.1	17.4	13.5	18.6
13	4.5	4.0	10.6	20.7	21.5	26.1	27.5	31.9	29.1	22.5	19.5	14.4	19.4
14	6.2	4.1	10.8	23.3	23.0	26.9	27.2	32.6	30.6	22.7	20.7	12.4	20.0
15	7.5	4.1	11.1	22.8	23.7	27.0	26.3	34.3	30.1	23.4	20.9	12.6	20.3
16	7.7	3.9	11.2	21.5	25.7	27.2	26.6	36.0	31.5	23.8	18.7	12.5	20.6
17	5.3	3.8	10.3	20.3	25.3	27.1	26.1	33.9	31.5	23.5	17.1	12.0	19.7
18	3.7	3.9	10.6	18.8	25.1	22.1	26.1	32.5	29.1	22.1	14.6	10.4	17.9
19	2.3	3.6	9.9	17.2	21.4	25.7	24.3	32.4	28.7	21.8	13.5	9.8	17.7
20	1.2	3.4	9.4	16.2	19.6	23.8	26.1	32.1	28.7	21.1	12.7	9.5	17.0
21	0.6	3.4	8.9	15.0	18.0	22.7	25.4	31.5	27.6	20.5	12.1	9.1	16.3
22	0.4	3.5	8.7	14.0	16.8	21.4	25.5	30.8	26.6	20.1	11.3	9.2	15.7
23	0.3	3.7	8.4	13.7	15.4	20.5	25.2	30.5	26.4	19.7	10.8	8.0	15.2
24	1.2	3.8	8.2	13.0	15.1	20.0	25.4	29.6	26.7	19.5	9.9	7.7	14.9
平均	2.76	3.96	8.76	16.0	18.2	22.2	26.0	30.4	27.4	20.8	12.6	9.22	14.9

阿蘇内牧黒川水温気温満一ヶ年観測表.

(4) 内牧気温毎日二回9時と15時観測表

年月	1943・4		5		6		7		8		9		10		11		12		1944・1		2		3		
日	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15	9	15	
1	8.2	11.2	17.0	20.1	19.2	21.8	18.8	19.65	27.4	29.2	25.6	27.3	18.0	19.5	17.5	19.5	7.8	8.5	-0.1	2.6	1.9	4.9	13.6	11.2	
2	11.1	14.4	20.0	24.3	20.2	23.7	20.65	22.15	27.2	28.4	23.9	26.9	20.0	22.2	19.0	20.9	7.1	9.6	1.4	1.4	2.0	2.4	6.8	8.0	
3	11.7	12.5	20.4	21.2	20.4	21.2	21.55	23.85	27.0	28.2	24.4	26.5	15.5	17.0	21.0	22.0	6.1	7.1	-0.3	1.8	3.8	6.0	7.3	9.6	
4	11.0	9.5	19.4	22.0	15.0	17.3	20.15	23.05	27.0	24.4	25.4	25.9	17.5	13.5	19.0	23.0	5.2	6.1	0.0	-0.1	4.7	5.4	8.0	10.4	
5	9.0	11.6	19.0	16.6	18.0	19.5	21.55	22.45	27.2	28.2	27.4	23.9	18.5	21.0	20.0	27.0	4.1	5.3	-1.1	1.2	3.4	4.4	7.0	5.4	
6	8.7	8.0	17.2	20.7	16.2	13.5	22.75	—	28.4	27.3	24.5	25.6	19.5	20.6	16.6	21.5	3.0	7.1	0.2	1.4	5.4	8.4	6.6	11.2	
7	7.8	10.2	19.9	23.3	19.8	21.5	—	—	28.5	30.7	27.1	25.2	17.2	26.6	17.2	17.0	5.2	8.6	-0.1	2.1	-0.1	1.3	7.9	13.6	
8	2.5	4.7	13.4	24.8	20.5	22.2	—	—	28.0	30.0	25.9	26.4	19.5	26.5	15.0	17.0	6.2	7.1	0.1	2.4	-0.6	1.1	10.6	10.9	
9	5.6	9.0	20.0	25.0	20.9	22.2	—	—	27.4	29.5	27.1	27.9	20.0	20.0	20.5	19.8	3.6	5.5	-0.8	5.2	1.4	1.4	6.2	7.3	
10	9.4	12.9	20.1	25.3	20.3	15.0	22.45	27.45	28.2	30.4	26.1	25.4	18.0	20.2	15.8	15.2	2.8	8.6	1.8	6.1	2.4	3.6	7.1	11.1	
11	7.4	10.7	20.1	22.3	23.0	24.0	24.65	28.55	23.7	30.2	25.7	24.4	19.0	20.5	16.4	13.2	8.6	9.9	1.3	-2.6	1.8	3.7	9.1	12.9	
12	4.0	7.3	20.3	23.3	23.0	24.0	23.55	26.75	28.5	26.2	23.4	22.4	19.9	19.2	15.0	15.6	6.1	7.6	-4.4	-2.9	3.1	5.7	7.3	11.3	
13	6.1	8.2	17.0	19.1	20.4	21.6	24.05	27.45	28.2	30.1	25.9	27.7	20.0	20.8	15.5	18.0	3.9	8.1	0.4	3.0	2.9	6.2	8.3	12.4	
14	6.5	4.8	19.2	24.1	20.9	24.3	24.85	28.75	29.4	27.4	26.4	28.9	21.0	21.5	12.5	22.6	4.4	9.6	2.9	4.5	2.9	6.2	11.0	13.6	
15	7.5	11.5	16.1	16.2	23.0	28.1	24.75	26.55	30.0	32.5	26.7	24.6	20.0	23.0	18.0	19.9	5.7	12.0	2.0	3.6	4.0	4.0	12.7	14.8	
16	7.5	10.5	13.4	14.8	23.1	23.8	22.75	24.65	28.4	27.2	26.7	28.0	18.5	20.5	17.5	18.0	4.1	8.2	0.0	3.9	3.15	7.9	11.9	14.5	
17	9.3	11.9	13.1	18.8	20.2	22.6	24.05	25.75	28.7	30.0	25.6	29.1	19.5	23.0	17.0	20.0	6.1	11.1	2.5	1.9	4.8	8.1	10.6	15.1	
18	7.5	9.6	12.1	19.9	20.0	20.1	23.75	26.35	29.7	29.7	26.2	28.8	19.0	21.5	13.2	11.8	6.1	10.2	5.1	2.4	5.7	5.2	12.9	17.1	
19	11.6	12.6	13.0	15.3	20.9	25.0	23.75	—	28.1	27.4	24.6	22.5	18.0	19.8	20.0	20.7	3.3	5.1	5.1	3.7	3.9	5.1	13.0	18.1	
20	8.8	14.5	12.4	18.2	20.9	24.0	—	—	27.7	28.4	22.1	23.5	17.5	19.8	20.0	—	6.1	8.0	5.2	3.9	2.2	-1.0	9.0	10.0	
21	9.5	16.5	9.1	20.0	22.0	23.2	24.55	25.45	28.4	29.5	23.4	25.2	18.0	19.5	19.9	21.3	4.1	8.9	6.2	5.6	1.0	5.4	10.1	14.35	
22	10.5	16.8	19.9	25.4	20.5	24.8	21.05	20.75	30.7	29.5	25.6	29.2	18.0	19.5	18.2	21.8	3.1	12.0	4.8	3.9	3.0	6.9	9.4	14.0	
23	8.8	15.7	19.3	19.6	20.5	23.5	21.65	22.45	30.7	30.5	24.4	27.9	17.5	21.0	14.5	22.3	4.6	6.9	0.7	4.7	4.4	5.9	10.9	13.4	
24	7.4	14.7	21.1	20.9	23.9	25.8	22.75	24.95	30.2	28.5	23.9	27.7	17.0	20.5	19.0	22.8	7.1	8.8	-0.2	3.7	0.9	4.4	6.1	7.5	
25	9.5	18.6	16.4	17.4	21.5	22.1	26.55	28.55	31.4	28.4	25.7	26.6	18.0	20.5	16.3	16.5	2.9	7.5	-0.2	4.4	2.1	5.4	8.0	11.0	
26	17.3	17.5	20.4	24.9	21.1	23.6	—	—	30.7	28.4	24.7	26.4	17.8	19.9	17.0	20.0	2.9	5.0	0.9	5.5	4.9	8.1	12.2	16.6	
27	12.4	10.9	14.6	14.5	20.5	20.9	23.05	22.85	—	—	25.4	26.2	13.5	20.1	16.0	15.2	3.6	4.4	1.2	3.8	2.9	10.5	8.1	13.2	
28	11.6	12.2	15.9	17.1	24.0	26.2	—	—	29.5	31.4	24.3	26.6	17.0	20.9	15.5	17.5	1.6	4.4	0.8	3.0	9.7	12.0	11.0	9.4	
29	10.3	12.8	17.0	19.4	25.8	25.0	—	—	30.2	32.2	24.4	24.6	18.0	20.6	17.8	20.4	6.6	10.0	0.8	3.8	—	—	8.2	10.9	
30	15.7	17.8	18.9	20.0	24.5	25.7	—	—	26.55	31.3	31.0	25.5	27.2	16.0	20.6	18.2	20.3	4.2	8.3	0.9	2.9	—	—	4.1	6.1
31	—	—	15.6	16.6	—	—	—	—	25.35	27.85	27.4	31.2	—	—	18.0	18.5	—	—	5.6	7.6	-1.2	1.5	—	—	—
平均	10.56	—	18.79	—	22.01	—	23.94	—	27.04	—	26.31	—	19.30	—	18.32	—	6.44	—	2.02	—	4.19	—	10.51	—	